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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,290	10/18/2001	Stephen John Lewis	010327-003600US	4486
20350	7590	06/02/2005		EXAMINER
				HOM, SHICK C
			ART UNIT	PAPER NUMBER
				2666

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/045,290	LEWIS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shick C. Horn	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 18 October 2001.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-36 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-36 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_.

**DETAILED ACTION**

***Specification***

1. The disclosure is objected to because of the following informalities: in page 1, the background of the invention section, update status of related U.S. Patent applications. Appropriate correction is required.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Objections***

3. Claims 8, 10, 20, 22, 32, and 34 are objected to because of the following informalities: in claims 8, 20, 32 line 3, the words "an insertion request" seem to refer back to "an insertion request" recited in claims 1, 13, 25 lines 4, 5, 8, respectively. If this is true, it is suggested changing "an insertion request" to ---the insertion request---. In claims 10, 22, 34 lines 1-2, the words "an appropriate insertion scheme" seem to refer back to "an appropriate insertion scheme" recited in claims 1, 13, 25, lines 8, 9, 12, respectively. If

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this is true, it is suggested changing "an appropriate insertion scheme" to ---the appropriate insertion scheme---. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 6-16, 18-28, 30-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawarai et al. (6,687,225).

Regarding claims 1, 13, 25:

Kawarai et al. disclose a method of inserting empty memory cells into a data flow of network connections of a computer network (see abstract which recite the cell insertion block for inserting an empty cell in a user cell stream being output from a buffer), the method comprising: receiving an insertion request

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for an empty memory cell to be inserted into the data flow (see col. 2 lines 42-55 which recite the means for sending an empty cell insertion request to the shaping block which receives the request); receiving a base connection identification (CID) associate with the insertion request (see col. 17 lines 46-51 which recite the line identifier and connection identifier being transmitted as the empty cell request signal clearly anticipate receiving the CID associated with the request); determining an appropriate insertion scheme for carrying out the insertion request (see col. 19 lines 7-23 which recite determining the timing for empty cell insertion being based on the scheduling counters of the QoS classes clearly anticipate determining an appropriate insertion scheme); and based on the appropriate insertion scheme, sending the insertion request to an insertion device configured to insert the empty memory cell into a main buffer for the data flow (see col. 2 lines 33-41 which recite the buffer for accumulating the received user cells and empty cell being inserted at the read out of the buffer clearly anticipate inserting the empty cell into a buffer for the data flow).

Regarding claims 2-3, 14-15, 26-27:

Kawarai et al. disclose wherein the appropriate insertion scheme is a predetermined insertion scheme configured to send

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the insertion request using the base connection identification (CID), wherein the base connection identification is associated with predetermined shaping parameters and wherein the method further comprises shaping the empty memory cell according to the predetermined shaping parameters (see col. 17 lines 56-63 which recite the empty cell information holding counter managing the cells for each line identifier and the shaping buffer to manage the cells for the QoS class clearly reads on the connection identification being associated with the shaping parameters as in claims 2, 14, 26 and shaping the empty memory cell according to the predetermined shaping parameters as in claims 3, 15, 27).  
Regarding claims 4, 16, 28:

Kawarai et al. disclose wherein the appropriate insertion scheme is a predetermined insertion scheme configured to send the insertion request using dedicated unshaped connection identifications (see Fig. 16 and col. 12 lines 13-20 which recite the QoS#1 connection providing a quality guaranteed service and the QoS#2 connection providing a best effort service clearly reads on the dedicated unshaped connection, because the best effort connection is not subject to any kind of regulation and hence an unshaped connection).

Regarding claims 6, 18, 30:

Kawarai et al. disclose configuring the dedicated unshaped connection identifications for the computer network to obtain configured connection identifications; configuring the base connection identification for the configured connection identifications (see col. 12 lines 13-20 which recite the QoS#2 connection providing a best effort service and col. 17 lines 32-45 which recite the counter being configured for managing the empty cell request for the connection identifier clearly reads on the unshaped connection identification and configuring the connection identification); configuring a cell type indication to be used for the insertion request (see Figs. 3A-3C and col. 6 lines 47-54 which recite the "EN" field which identifies the cell as an empty cell or valid cell and the "PTI" field which is the payload type identifier clearly anticipate the cell type indication); and configuring a queue identification to be used for the insertion request (see col. 15 lines 50-55 which recite the step of setting the queue length threshold value of the cell insertion queue for QoS#1 and of the cell insertion queue for QoS#2 in order to control the delay time of the empty cell request according to the QoS class clearly anticipate the queue identification to be used for the insertion request).

Regarding claims 7, 19, 31:

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Kawarai et al. disclose wherein the insertion request is received from one of: an operations and maintenance (OAM) device; a performance monitoring device; an available bit rate (ABR) device; a central processing unit; or an operations and maintenance scan device (see the abstract which recite the use of OAM cell and best effort service such as ABR).

Regarding claims 8, 20, 32:

Kawarai et al. disclose wherein the performance monitoring device and the operations and maintenance scan device each requires an insertion request to be carried out with a predetermined insertion scheme (see col. 7 lines 8-17 which recite cell insertion including management of OAM cells and performance management whereby the empty cell request signal includes the QoS class, line identifier, and connection identifier), wherein the predetermined insertion scheme is configured to send the insertion request using the base connection identification (CID), wherein the base connection identification is associated with predetermined shaping parameters (see col. 7 lines 8-17 which recite cell insertion including management of OAM cells and performance management whereby the empty cell request signal includes the QoS class, line identifier, and connection identifier and col. 6 lines 12-

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32 which further recite securing the bandwidth matching the OAM cell using shaping).

Regarding claims 9, 21, 33:

Kawarai et al. disclose wherein the an available bit rate (ABR) device requires an insertion request to be carried out with a predetermined insertion scheme, wherein the predetermined insertion scheme is configured to send the insertion request using dedicated unshaped connection identifications (see the abstract which recite the use of best effort service such as available bit rate ABR for bandwidth control and insertion and col. 12 lines 13-20 which recite using the QoS#2 connection which provides a best effort service clearly reads the ABR insertion being carried out on the dedicated unshaped connection).

Regarding claims 10, 22, 34:

Kawarai et al. disclose wherein the step of determining an appropriate insertion scheme comprises performing a lookup in a scan table (see col. 16 lines 1-8 which recite the use of the shaping buffer management table including the line management table for storing user cell queue addresses and number of user cells in each QoS class number and for managing space in the shaping buffer clearly reads on the step of performing a lookup in a table to determine the insertion scheme).

Regarding claims 11, 23, 35:

Kawarai et al. disclose wherein the step of sending the insertion request causes the empty memory cell to be transmitted through the data flow (see abstract which recite receiving an empty cell insertion request and the cell insertion block for inserting an empty cell in the user cell stream).

Regarding claims 12, 24, 36:

Kawarai et al. disclose wherein the empty memory cell inserted by the insertion device carries the cell type indication (see Figs. 3A-3C and col. 6 lines 47-54 which recite the "EN" field which identifies the cell as an empty cell or valid cell and the "PTI" field which is the payload type identifier clearly anticipate the cell type indication).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 5, 17, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawarai et al. (6,687,225) in view of Lin et al. (5,966,163).

For claims 5, 17, 29, Kawarai et al. disclose the system and method described in paragraph 5 of this office action. Kawarai et al. disclose all the subject matter of the claimed invention with the exception of wherein there are 16 unshaped connection identifications.

Lin et al. from the same or similar fields of endeavor teach that it is known to provide wherein there are 16 unshaped connection identifications (see col. 5 lines 48-54 which recite

using plural connection identifications). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to use 16 unshaped connection identifications as taught by Lin et al. in the communications system and method of Kawarai et al. The use 16 unshaped connection identifications can be implemented by connecting 16 unshaped connection of Lin et al. including the identifications to the network of Kawarai et al. The motivation for using 16 unshaped connection identifications as taught by Lin et al. in the communication system and method of Kawarai et al. being that it provides the desirable added feature of supporting up to 16 diverse message traffic in the system.

#### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hoch et al. disclose apparatus and method for packet-based switching.

Chidambaran et al. disclose apparatus and method for redundancy of processing modules interfaced to a switching core.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can

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normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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